

Appl. No.: 09/942,872  
Filed: August 30, 2001  
Amdt. dated 09/01/2005

Amendments to the Claims:

1. (Currently Amended) A method of controlling the operation of at least one motion device by directly implementing electronic simulation information, wherein the at least one motion device comprises at least one controllable element, said method comprising:

extracting process information from the electronic simulation information, wherein the electronic simulation information is representative of information regarding the at least one motion device, and is further representative of information regarding the at least one object when the at least one motion device is configured to operate on at least one object, and wherein the electronic simulation information is otherwise capable of being used to verify having been configured for simulating operation of the at least one motion device produced by a set of operation information;

formatting the process information into neutral process information, wherein the neutral process information is in a format independent of a format of the electronic simulation information;

interpreting the neutral process information into operation information for each of the at least one controllable element, wherein the operation information depends on a type of the at least one motion device; and

distributing the operation information to the at least one controllable element of the at least one motion device to thereby control the operation of the at least one motion device.

2. (Original) A method according to Claim 1, wherein the at least one motion device comprises a plurality of motion devices, wherein interpreting comprises interpreting the neutral process information into operation information specific to the type of each of the plurality of motion devices, and wherein distributing comprises distributing the operation information to the at least one controllable element of respective motion devices of the plurality of motion devices.

3. (Original) A method according to Claim 1, wherein the electronic simulation information comprises electronic simulation information in at least one format, and wherein

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formatting comprises formatting the process information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information.

4. (Original) A method according to Claim 1, wherein the at least one motion device operates according to operation information in at least one format, and wherin interpreting comprises interpreting the neutral process information into operation information in the at least one format of the at least one motion device.

5. (Previously Presented) A method according to Claim 1, wherin the electronic simulation information comprises electronic simulation information in at least one format, wherein the at least one motion device operates according to operation information in at least one format, wherein formatting comprises formatting the process information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and wherein interpreting comprises interpreting the neutral process information into operation information in the at least one format of the operation information of the at least one motion device.

6. (Original) A method according to Claim 5, wherein formatting comprises formatting the process information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and further independent of the at least one format of the operation information of the at least one motion device.

7. (Original) A method according to Claim 1, wherein the at least one motion device comprises at least one machine tool, and wherin distributing comprises distributing the operation information to the at least one machine tool to thereby control the operation of the at least one machine tool.

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8. (Currently Amended) A system for controlling the operation of at least one motion device comprising at least one controllable element, said system comprising:
- a setup component capable of extracting process information from electronic simulation information, wherein the electronic simulation information is representative of information regarding the at least one motion device, and is further representative of information regarding the at least one object when the at least one motion device is configured to operate on at least one object, ~~wherein the electronic simulation information is otherwise capable of being used to verify having been configured for simulating operation of the at least one motion device produced by a set of operation information, wherein said setup component is further capable of formatting the process information into neutral process information, wherein the neutral process information is in a format independent of a format of the electronic simulation information; and~~
- at least one motion command component capable of receiving the neutral process information from said setup component, wherein each motion command component is associated with at least one motion device, wherein each motion command component is capable of interpreting the received neutral process information into operation information for the at least one controllable element of each respective motion device, wherein the operation information depends on a type of the at least one motion device, and wherein each motion command component is further capable of distributing the operation information to the at least one controllable element of each respective motion device to thereby control the operation of the respective motion devices.

9. (Original) A system according to Claim 8, wherein the at least one motion device comprises a plurality of motion devices, said setup component is capable of interpreting the neutral process information into operation information specific to the type of each of the plurality of motion devices, and wherein each motion command component is capable of distributing the operation information to the at least one controllable element of each respective motion device of the plurality of motion devices.

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10. (Original) A system according to Claim 8, wherein the electronic simulation information comprises electronic simulation information in at least one format, and wherein said setup component is capable of formatting the process information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information.

11. (Original) A system according to Claim 8, wherein the at least one motion device operates according to operation information in at least one format, and wherein each motion command component is capable of interpreting the neutral process information into operation information in the format of each respective motion device.

12. (Original) A system according to Claim 8, wherein the electronic simulation information comprises electronic simulation information in at least one format, wherein the at least one motion device operates according to operation information in at least one format, wherein said setup component is capable of formatting the process information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and wherein each motion command component is capable of interpreting the neutral process information into operation information in the format of each respective motion device.

13. (Original) A system according to Claim 12, wherein said setup component is capable of formatting the process information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and further independent of the at least one format of the operation information of the at least one motion device.

14. (Original) A system according to Claim 8, wherein the at least one motion device comprises at least one machine tool, and wherein each motion command component is

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capable of distributing the operation information to each respective machine tool to thereby control the operation of the respective machine tools.

15. (Currently Amended) A computer program product for controlling the operation of at least one motion device by directly implementing electronic simulation information, wherein the at least one motion device comprises at least one controllable element, the computer program product comprising a computer-readable storage medium having computer-readable program code embodied in said medium, the computer-readable program code comprising:

a first executable portion for extracting process information from the electronic simulation information, wherein the electronic simulation information is representative of information regarding the at least one motion device, and is further representative of information regarding the at least one object when the at least one motion device is configured to operate on at least one object, and wherein the electronic simulation information is otherwise capable of being used to verify having been configured for simulating operation of the at least one motion device produced by a set of operation information;

a second executable portion for formatting the process information into neutral process information, wherein the neutral process information is in a format independent of a format of the electronic simulation information;

a third executable portion for interpreting the neutral process information into operation information for each of the at least one controllable element, wherein the operation information depends on a type of the at least one motion device; and

a fourth executable portion for distributing the operation information to the at least one controllable element of the at least one motion device to thereby control the operation of the at least one motion device.

16. (Original) A computer program product according to Claim 15, wherein the at least one motion device comprises a plurality of motion devices, wherein said third executable portion interprets the neutral process information into operation information specific to the type of each of the plurality of motion devices, and wherein said fourth executable portion distributes

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the operation information to the at least one controllable element of respective motion devices of the plurality of motion devices.

17. (Original) A computer program product according to Claim 15, wherein the electronic simulation information comprises electronic simulation information in at least one format, and wherein said second executable portion formats the process information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information.

18. (Original) A computer program product according to Claim 15, wherein the at least one motion device operates according to operation information in at least one format, and wherein said third executable portion interprets the neutral process information into operation information in the at least one format of the at least one motion device.

19. (Previously Presented) A computer program product according to Claim 15, wherein the electronic simulation information comprises electronic simulation information in at least one format, wherein the at least one motion device operates according to operation information in at least one format, wherein said second executable portion formats the process information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and wherein said third executable portion interprets the neutral process information into operation information in the at least one format of the operation information of the at least one motion device.

20. (Original) A computer program product according to Claim 19, wherein said second executable portion formats the process information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and further independent of the at least one format of the operation information of the at least one motion device.

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21. (Original) A computer program product according to Claim 15, wherein the at least one motion device comprises at least one machine tool, and wherein said fourth executable portion distributes the operation information to the at least one machine tool to thereby control the operation of the at least one machine tool.